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ABSTRACT

This study evaluated whether the low retention rate (53 percent) between their first and second years of students at Atkinson College, the part-time evening school of York University (Ontario, Canada) is primarily due to institutional failure or to the characteristics and choices of mature students. A survey was sent to admitted students in September 1993 which covered students' background, potential barriers to education, and initial commitment to education. In February-March 1994 a second survey collected data on students' college experiences, their satisfaction, and final commitment to the college. A total of 489 identified students completed both surveys. Of these students, 53 percent returned to Atkinson in the Fall of 1994 and 43 percent left the university. Overall, the study found that many students who left the university never intended to complete a degree, took fewer courses, and knew by the end of the first year they would not return for a second year. Students who left the university did not differ from those who returned in terms of factors such as barriers to education, their first year experiences, and satisfaction levels. The study concluded that the low retention rate is more a reflection of student choices than of institutional failure. (Contains 11 references.) (DB)

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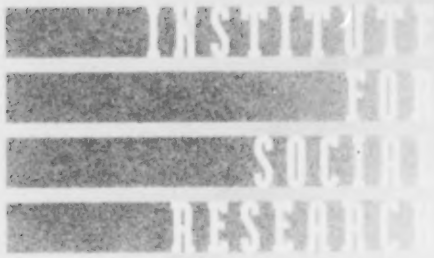

THE RETENTION OF FIRST YEAR STUDENTS IN ATKINSON COLLEGE: INSTITUTIONAL FAILURE OR STUDENT CHOICE?

J. PAUL GRAYSON

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The following is a working paper.

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Other Publications on York Students

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Gordon Darroch, David A. Northrup and Mirka Ondrack (1989)

Summary

With a second year retention rate of 53%, Atkinson College, the part-time evening operation of York University, loses more students between first and second year than any other undergraduate faculty. The objective of the report is to determine whether or not a retention rate of this magnitude reflects institutional failure or the characteristics and choices of 'mature' students.

Surveys carried out prior to the commencement of class and at the end of the first year of study permitted an examination of the impact of background characteristics, barriers to education, initial goals and commitments, college experiences, satisfaction with these experiences, final commitments to the college, and first year grades on retention for a second year of study.

Overall it was found that compared to those who returned for a second year, many students who left the university never intended to complete a degree to begin with, took fewer courses, and by the end of the first year were already reasonably sure that they would not come back for a second year. Students who left the university did not differ from those who returned to the College in terms of factors such as barriers to education, the type of experiences they had over the first year, and satisfaction with various aspects of their education. As a result, it can be concluded that the low retention rate is more a reflection of student choices than of institutional failure.

Introduction

Atkinson College is the evening operation of York University. As a result, the average student entering the College is older and more likely to be employed than students enroling in other faculties. In addition, the retention rate between first and second year for Atkinson students appears to be lower than for other faculties.

Data from administrative records indicate that excluding Atkinson College, of students entering York directly from high school who were in first year in 1994, 82% returned for a second consecutive year in 1995. Unfortunately, similar data from administrative records for all first year Atkinson students are unavailable. Nonetheless, the same records indicate that only 53% of a sample of 489 entering Atkinson students surveyed in the Spring of 1994 returned to Atkinson the following September; 4% went to other York faculties; and 43% left the university.

Does an attrition rate of this magnitude reflect institutional failure for the College or the particular circumstances and choices of primarily adult learners? The objective of this report is to shed some light on this question. Data for the analysis were collected in a survey of 1,019 students conducted prior to the commencement of classes in September 1993, in a further survey of 793 students carried out at the end of the first year in February-March 1994, and from administrative records.

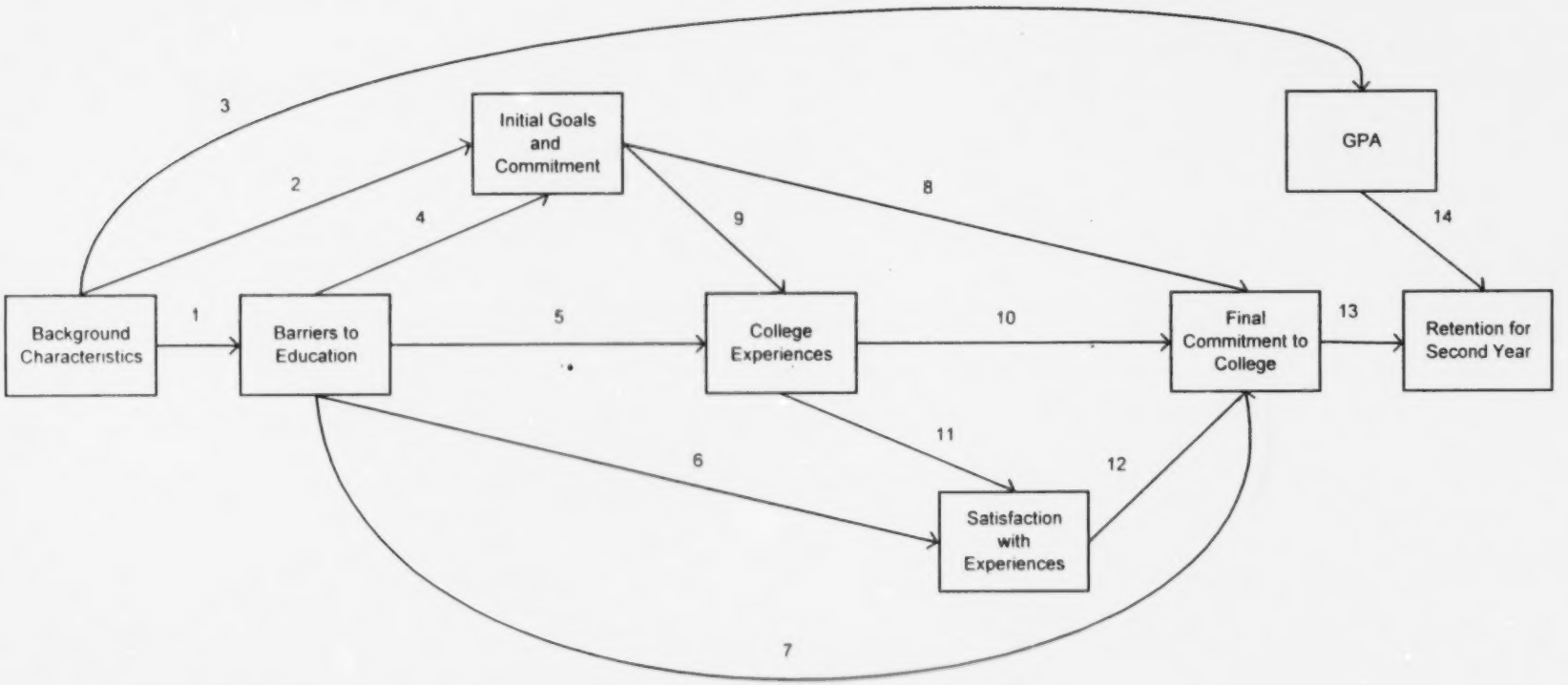
Approach to Study

The current analysis is based on the assumption that the decision to continue or discontinue studies is a function of several factors and processes that begin prior to enrolment and continue through the first year (Tinto, 1993). The factors and processes are outlined in model form in Diagram 1.

The model combines a number of insights gained from examinations of the retention of both traditional (full-time, daytime) and non-traditional (in this instance, part-time adult) students. Unfortunately, while the insights of others will be recognized, space constraints prohibit a detailed examination of how the model builds on previous research. In addition, the model is best viewed as an organizing schema for survey data. While an attempt will be made to relate various factors in the model through logistic regression, the building of a statistical model is not the intent of the current report.

It should be noted that the spatial sequence in the diagram represents a temporal sequence over the course of the first year. Background characteristics precede barriers to education; the latter come before initial goals and commitments; initial goals and commitments precede college

Diagram 1: Factors Contributing to Retention



experiences; and so on. In addition, an arrow from one factor in the model to another indicates a potential connection between the two.

Components of Model

Background Characteristics

It is generally recognized that background factors, such as gender, racial origin, family income, age, and particularly previous levels of academic achievement may affect retention for a second year of study (Dietsche, 1990; Tinto, 1993). For example, in the faculties of Arts and Pure and Applied Science at York it has been shown that students who leave the university in poor standing after their first year had lower high school marks than students who enroled for a second year (Grayson, 1996). As a result of findings like these several background factors were included in this analysis.

Barriers to Education

We cannot automatically assume that certain background characteristics, such as low family incomes, are barriers to continuing education. Social and other forms of support may be available that offset any disadvantages associated with factors such as these. Moreover, some barriers derive not from an individual's background but are embedded in practices, such as cumbersome admissions processes, operative in colleges and universities. As a result, barriers to education must be examined independent of background characteristics.

According to Cross (1984:97) it is possible to distinguish among three types of barriers to adult education. Each has the potential to influence decisions regarding enrolment and persistence. *Situational* barriers, such as concern with finances and responsibilities for child care, arise from an individual's life circumstances at a given point in time. *Institutional barriers* "consist of all those practices and procedures that exclude or discourage working adults from participating in educational activities." Courses scheduled at inconvenient times is an example. Finally, *dispositional barriers* "are those related to attitudes and self-perceptions about oneself as a learner," such as lack of self-confidence.

Educational Goals

While they may be related to barriers, decisions regarding persistence in education also can be related to students' original reasons for enrolment (Cabrera, Castaneda, Nora & Hengstler, 1992; Corman, Barr & Caputo, 1992; Braxton & Brier, 1989). For example, a student who originally intended to complete only a few courses relevant to his/her job may be unlikely to return for a

second year or to finish a degree.

College Experiences

Decisions to continue studies may also be related to specific experiences students have in colleges and universities. Post-secondary experiences can be divided into classroom experiences; informal academic and social experiences; and out-of-class contacts with faculty and staff. An extensive research literature has linked each to educational outcomes such as grades, intellectual development, and retention (Astin, 1993; Pascarella & Terenzini, 1991). In brief, all else being equal, the more the student participates in the academic and social life of the university, the more likely he/she is to get good marks, experience intellectual development, and persist to graduation. The term frequently used to describe this state of affairs is *involvement* (Astin, 1993; Kuh, 1995).

Satisfaction with Experiences

Satisfaction with university experiences should be viewed as independent of the experiences themselves. For example, two students may have the same degree of involvement in classroom activities but they may differ with regard to their evaluation of such activities. Both university experiences and the student's evaluation of them can have implications for various outcomes such as retention. All else being equal it can be assumed that a highly satisfied student is more likely than a highly dissatisfied student to persist in his or her studies.

Final Commitment to College

As a result of various factors and experiences, over the course of the first year, a student's commitment to continuing his/her studies may change from what it was at the beginning of the year. As a result, end-of-year commitments to further study must be considered in analyses of persistence and attrition (Cabrera, Castaneda, Nora & Hengstler, 1992; Tinto, 1993).

GPA

The relationship between first year achievement and retention is not straight forward. In the faculties of Arts and Pure and Applied Science at York, for example, students who at the end of first year left the university in poor standing, as might be expected, had very low first year grade point averages. However, students who left in good standing had higher grades than those who remained in the same faculty for a second year (Grayson, 1996). Perhaps the former were more able than the latter to gain admission to other colleges and/or universities. Whatever the case, it is clear that in other parts of York University there a connection between first year grades and enrolment status in second year. Whether or not the same is true of Atkinson students will be determined later in this report.

Interconnections

As seen in Diagram 1, there are a number of possible connections among various factors of potential importance in explaining student retention for a second year. For example, certain background characteristics, such as a low family income, may, in various ways, pose barriers to higher education (line 1). Similarly, an individual's goals and commitments may be linked to background characteristics such as gender (line 2). As previous educational attainment is classified as a background characteristic, the latter can also be viewed as having potential implications for first year grade point averages (line 3).

Barriers to education, such as lack of adequate child care, may result in an initial tentative commitment to education (line 4); low levels of involvement in various activities (line 5); low satisfaction with those experiences because of the effects of competing demands on time (line 6); and a decision not to return for a second year (line 7).

An initial expectation of a student that she/he will complete only a few courses, and not finish a degree, may not change over the first year (line 8). The same initial commitment may result in less than full involvement in available learning opportunities (line 9). In turn, positive college experiences, such as a rewarding experience in a course, may lead to a decision to complete a degree (line 10), and to positive evaluations of the educational experience (line 11). Moreover, satisfaction with the educational experience itself may affect a student's future plans at the end of first year (line 12). Ultimately, at the end of first year, students' intentions regarding enrolment in a second year (line 13), and grade point averages (GPA) (line 14), are likely to affect whether or not they actually enrol the following year. In the current report, attention will focus on the implications of the above factors for retention in second year.

Data Sources

For this report, information on students' background, potential barriers to education, and students' initial commitments to education were obtained in a mail survey of 1,091 students admitted to Atkinson College carried out prior to the beginning of classes in September, 1993. Data on college experiences, satisfaction with experiences, and final commitment to the College came from a mail survey of 793 students carried out in February-March of 1994. Information on whether or not students enroled for a second year was obtained from administrative records.

As the request was optional, in the surveys only approximately 70% of respondents supplied a student number. Moreover, approximately 20% of students participating in the first survey failed to enrol in any courses in September, 1993. As a result, it was not possible to link all data

collected from the first survey to that collected in the second. Nonetheless, 489 students who completed the first survey enroled in courses, completed the second survey, and identified themselves on both. This analysis will be based on this group of students. On the basis of administrative data available in the Fall of 1994 (second year) it is possible to divide these students into those who returned to Atkinson (53%), students who enroled in another York faculty (4%), and those who left the university (43%).

Background Characteristics

With the exception of age, survey data show that background factors do not affect the second year enrolment status of Atkinson students. Overall, 33.3% and 67.4% of students responding to the survey were male and female respectively; however, there were no statistically significant gender based differences among those who returned to Atkinson for a second year, went to another faculty at York, or left the university.

When visible minority status was examined the pattern was the same. Thirty-eight percent of the sample self-identified as members of a visible minority group but there were no statistically significant differences among the numbers of visible minorities who returned to Atkinson or another York faculty or who left the university.

While previous marks are important in examinations of university outcomes such as retention, there is no common metric for grades that can be applied to students entering Atkinson: some did not graduate from high school; others graduated some time ago when standards may have been different than they are now; many students received their previous education overseas; many entered the College with previous post-secondary experience. Despite these possibilities, all students were asked their grade average for the last year in which they were a student in an educational institution. Answers to this question indicate that for students who returned to Atkinson or to another faculty, or who left the university, marks were all in the mid-seventies and the slight differences among students depending upon their enrolment statuses were not statistically significant.

What of those with previous post-secondary experience? Were they more likely than others to return for a second year of study? In fact, the reverse is true.

Of students whose prior education was high school or less (approximately 12% of the sample), 33.2% left York. Of those who had more than high school education the figure for those who left

the university was a higher 45.4%.[1]

Of those with high school or less, 56.2% returned to the College while the comparable figure for students with at least some post secondary education was a slightly lower 52.1%.

Finally, while 11.4% of students with high school or less education went elsewhere in York, only 3.3% of those with at least some post-secondary education migrated to other York faculties. Chi-square for these observed differences is statistically significant at the .018 level.

Differences in enrolment status were not related to income. The average annual family income of students in all three enrolment statuses was in the $50,000 to $74,999 category.

Whereas those who left the university and returned to Atkinson were 33 and 31 years of age respectively, students going elsewhere in York were only 26. A multiple range test indicated that while differences between those leaving York and returning to Atkinson were not statistically significant, differences between Atkinson returnees and those going elsewhere at York, and differences between university leavers and those going to other York faculties, were significant at the .05 level.

Overall, the foregoing indicate that retention at Atkinson is related to some background characteristics. Students who have no prior post-secondary education are very slightly more inclined to return for a second year at Atkinson than those with some college or university experience. In addition, students who return to Atkinson are older than those who transfer to other York faculties; however, they are more or less the same age as students who leave the university.

Barriers to Education

Situational, institutional, and dispositional barriers to education were assessed by having students respond to a number of barrier related statements in which 1 meant strongly disagree and 5 strongly agree. Responses to the statements stratified by enrolment status at the beginning of second year (Fall of 1994) are summarized in Tables 1, 2, and 3. In examining information in these tables, attention will focus on differences among students with different enrolment statuses. Whether or not absolute levels of agreement are acceptable is beyond the scope of this report.

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[1]Although students may have some post-secondary education, they may not have completed the course(s) or program(s) in which they were registered.

Table 1: Enrolment Status in 1994 by Situational Barriers in 1993

		Enrolment Status of 1993 Cohort in 1994			
Agree that...		Left York	Atkinson	Other York	Group Total
Cost Not a Burden[a]	Mean	2.8	3.1	2.3	2.9
	Std Deviation	1.1	1.3	1.2	1.2
	Valid N	N=133	N=240	N=19	N=392
Sufficient Study Time	Mean	3.6	3.8	3.9	3.7
	Std Deviation	1.0	.9	.8	1.0
	Valid N	N=130	N=245	N=19	N=394
No Transportation Problems	Mean	3.9	4.0	4.0	4.0
	Std Deviation	1.4	1.2	1.2	1.3
	Valid N	N=129	N=238	N=17	N=384
Home Study Space	Mean	4.2	4.2	4.2	4.2
	Std Deviation	1.1	1.0	1.2	1.0
	Valid N	N=136	N=247	N=17	N=400
No Child Care Problems	Mean	4.1	4.0	3.7	4.0
	Std Deviation	1.0	1.2	1.5	1.2
	Valid N	N=44	N=93	N=7	N=144
Friends Support Education	Mean	4.5	4.6	4.2	4.5
	Std Deviation	.8	.7	1.1	.8
	Valid N	N=117	N=213	N=17	N=347
Employer Supports Education	Mean	4.4	4.5	3.8	4.4
	Std Deviation	.9	.9	1.3	.9
	Valid N	N=91	N=163	N=5	N=259
Family Supports Education	Mean	4.5	4.6	4.5	4.6
	Std Deviation	.9	.7	.7	.8
	Valid N	N=126	N=240	N=17	N=383

a. F sig .012

Table 2: Enrolment Status in 1994 by Institutional Barriers 1993

		Enrolment Status of 1993 Cohort in 1994			
Agree that...		Left York	Atkinson	Other York	Group Total
Not Concerned Time to Achieve Goals	Mean	3.1	3.3	2.8	3.2
	Std Deviation	1.4	1.4	1.4	1.4
	Valid N	N=134	N=253	N=20	N=407
Courses Scheduled Convenient Times	Mean	3.7	3.7	3.4	3.7
	Std Deviation	1.1	1.1	1.2	1.1
	Valid N	N=126	N=228	N=15	N=369
Staff/Facilities Hours Adequate	Mean	3.7	3.7	3.9	3.7
	Std Deviation	1.0	1.1	.9	1.0
	Valid N	N=82	N=135	N=11	N=228
Sufficient Course Info	Mean	3.3	3.4	3.1	3.4
	Std Deviation	1.1	1.1	1.2	1.1
	Valid N	N=130	N=243	N=19	N=392
Strict Attendance No Probelm	Mean	3.9	4.1	4.1	4.0
	Std Deviation	1.1	1.0	1.0	1.0
	Valid N	N=132	N=243	N=18	N=393
Too Much Red Tape - Admissions	Mean	2.7	2.5	2.4	2.5
	Std Deviation	1.2	1.2	1.4	1.2
	Valid N	N=126	N=225	N=16	N=367

Table 3: Enrolment Status in 1994 by Dispositional Barriers in 1993

		Enrolment Status of 1993 Cohort in 1994			
Agree that...		Left York	Atkinson	Other York	Group Total
Too Old to Begin Studies	Mean	1.8	1.7	1.8	1.7
	Std Deviation	1.2	1.2	1.1	1.2
	Valid N	N=123	N=227	N=15	N=365
Lack Self-Confidence to Complete Studies	Mean	1.8	1.8	2.1	1.8
	Std Deviation	1.1	1.0	1.1	1.1
	Valid N	N=137	N=251	N=20	N=408
Not Enough Energy or Stamina to Complete Studies	Mean	1.9	1.8	1.4	1.8
	Std Deviation	1.1	1.0	.7	1.0
	Valid N	N=135	N=247	N=19	N=401
Enjoy Studying in General	Mean	3.9	3.9	3.9	3.9
	Std Deviation	.9	1.1	.7	1.0
	Valid N	N=138	N=252	N=20	N=410
Tired of Schools and Classrooms	Mean	1.6	1.5	1.3	1.5
	Std Deviation	.8	.8	.6	.8
	Valid N	N=134	N=248	N=20	N=402
Past Educational Experiences Negative	Mean	1.9	1.9	1.9	1.9
	Std Deviation	1.0	1.2	1.2	1.1
	Valid N	N=137	N=255	N=20	N=412

Situational Barriers

Situational barriers to respondents' education were measured with statements indicating that: costs of education were not a barrier; sufficient time was available for study; transportation to university posed no problems; study space was available at home; child care presented no problems; and that friends, employers, and families supported the student's educational endeavours.

Table data, with one exception, indicate that overall students face few situational barriers. (For example, the average score for having sufficient study time and a supportive family are 3.7 and 4.6 respectively.) Moreover, again with one exception, as seen from Table 1, there are no statistically significant differences among students who left York, remained at Atkinson, or went elsewhere in York. The exception is the assessment of the extent to which costs of education (tuition, books, transportation, etc.) were expected to be a burden: students who would leave Atkinson for other York faculties disagreed that costs were not a burden more so than those staying in the College or leaving York. The results of a multiple-range test (not shown), however, indicate that only the difference between students remaining at Atkinson and those going to other York faculties is statistically significant at the .05 level.

The fact that those going elsewhere in York disagreed more than other students that costs were not a burden might be explained by their relative youth. Despite this finding, it is fair to say that overall there is little difference between students leaving York, staying at Atkinson, and going elsewhere in York in terms of situational barriers to education.

Institutional Barriers

The same conclusion applies to potential institutional barriers as summarized in Table 2. Overall, there are no statistically significant differences among students who left York, remained at Atkinson, or went elsewhere in York in terms of agreement with: not being concerned with the time required to complete their education; courses are scheduled at convenient times; the operating hours of staff and various facilities, such as the bookstore, are adequate; information on courses is sufficient; meeting attendance requirements is not a problem; and that gaining admission to the College was problematic.

Dispositional Barriers

The pattern is repeated when dispositional barriers are examined. Information in Table 3 shows that there are no statistically significant differences among students when it comes to agreeing that they: are too old to begin their studies; lack self-confidence; have insufficient stamina to complete their studies; enjoy studying; are tired of schools and classrooms; and that past educational experiences were negative.

Collectively, data in Tables 1, 2, and 3 indicate that situational, institutional, and dispositional barriers do not account for why some students return to Atkinson while others leave the university or go elsewhere in York.

Initial Goals and Commitment

Initial goals and commitment were measured by asking students to specify their educational plans. The options were: I'm not sure of my plans yet; I intend to complete one course only; I intend to complete a few courses only; I intend to complete a certificate; and, I intend to obtain a bachelor's degree. In the current analysis answers were divided into two categories: plans to complete less than a bachelor's degree and plans to finish a bachelor's degree. The extent to which these initial goals and commitment had implications for enrolment status one year later is summarized in Table 4.

Clearly, enrolment status in second year is related to students' initial goals and commitment prior to the beginning of first year. Of those who stated that they were seeking less than a bachelor's degree, 57.7% left York. On the other hand, of those whose goal was a bachelor's degree, only 26.6% left York. Similarly, among students whose plans included less than a bachelor's degree, only 37.2% returned to Atkinson whereas 68.7% of students who intended to earn a degree came back for a second year.

When it comes to those who went elsewhere in York, original goals have less impact on enrolment status in second year. Similar percentages of students who did not intend to complete a degree (5.1%) and who did have the objective of degree completion (4.7%) went to other York faculties. Chi-square for the differences expressed in the table is significant at the .000 level.

Overall, initial goals and commitment as measured prior to the beginning of classes in first year have important implications for leaving York or returning to Atkinson one year later. In one sense, then, enrolment behaviour in second year can be related to original educational plans: many of those who did not return may never have intended to do more than complete the courses they enroled in.

College Experiences

College experiences were defined in terms of: the type of experiences students had in the classroom; attendance at lectures, laboratories, tutorials, etc.; the extent to which individuals

Table 4: Enrolment Status 1994 by Educational Plans 1993

			Enrolment Status of 1993 Cohort in 1994			
			Left York	Atkinson	Other York	Group Total
Educational Plans	Less Than Bachelor's Degree	Row %	57.7%	37.2%	5.1%	100.0%
		Count	45	29	4	78
	Bachelor's Degree	Row %	26.6%	68.7%	4.7%	100.0%
		Count	85	219	15	319
Group Total	Row %		32.7%	62.5%	4.8%	100.0%
	Count		130	248	19	397

Chi-square sig .000

participated in informal campus activities; the degree to which students were able to make friends and develop a sense of belonging to the College; and the number of courses taken and the amount of time that students spent on their studies outside of the classroom. The underlying assumption is that students who have worthwhile experiences and high levels of involvement in both curricular and extra-curricular activities would be more likely than others to return to Atkinson for a second year.

As seen in Table 5, classroom experiences were defined in terms of students agreeing, on a five point scale where 1 meant strongly disagree and 5 strongly agree, that: professors were helpful; students' opinions were valued in the classroom; courses were challenging; professors put effort into teaching; professors and teaching assistants were interested in students' development; and professors were not unreasonable in their demands of students.

The most important observation to be made on the basis of information in Table 5 is that despite the initial assumption, there were no statistically significant differences in any of the classroom experiences based on enrolment status. For example, students who left the university or who returned to Atkinson or York were similar in their views on how helpful professors had been.

The same is true for class attendance as summarized in Table 6. No statistically significant differences are to be found on the basis of enrolment status in the percentage of lectures and labs etc. attended.

Data in Table 7 suggest a similar conclusion with respect to out-of-class activities as measured by: number of non-required academic activities (such as academic forums) attended in the previous two months; the number of clubs or organizations students belonged to; the number of sports activities (football, hockey, etc.) individuals were involved in; the number of sports activities watched since September; number of weekly pub visits; the number of new friends made since the beginning of classes; and the number of minutes per week the student spent with new friends. For none of the above were differences among students who left York, returned to Atkinson, or transferred elsewhere in York statistically significant.

It might be noted that the overall involvement of students in different activities was extremely low. The recorded means reflect the fact that in most instances students had no involvement in extra-curricular activities. Indeed, informal contacts with other students for an average of 26 minutes a week was the only way in which outside of the classroom the vast majority of students related to the broader university.

In view of the foregoing, as seen in Table 8, it is understandable that on a five point scale where 1 meant strongly disagree and 5 strongly agree, that students only score 2.9 in terms of agreeing that they had made many new friends since enroling in the College; however, differences for this measure based on enrolment status are not statistically significant.

Table 5: Classroom Experiences

Agree that...		Enrolment Status of 1993 Cohort in 1994			
		Left York	Atkinson	Other York	Group Total
Profs Helpful	Mean	3.2	3.2	3.5	3.2
	Std Deviation	1.1	1.2	1.3	1.2
	Valid N	N=190	N=233	N=20	N=443
Students' Opinions Valued	Mean	3.8	3.9	4.0	3.9
	Std Deviation	1.0	.9	.8	.9
	Valid N	N=206	N=252	N=20	N=478
Courses Challenging	Mean	3.7	3.9	3.9	3.8
	Std Deviation	.9	.9	.9	.9
	Valid N	N=209	N=256	N=20	N=485
Profs Effort in Teaching	Mean	3.8	3.8	4.0	3.8
	Std Deviation	1.0	1.0	1.2	1.0
	Valid N	N=207	N=255	N=20	N=482
Profs Interested Students' Development	Mean	3.4	3.5	3.5	3.5
	Std Deviation	1.1	1.2	1.2	1.1
	Valid N	N=192	N=235	N=20	N=447
TAs Interested Students' Development	Mean	3.2	3.3	3.8	3.3
	Std Deviation	1.0	1.1	1.0	1.1
	Valid N	N=98	N=126	N=13	N=237
Profs Not Unreasonable in Demands	Mean	3.6	3.7	4.0	3.6
	Std Deviation	1.1	1.1	1.1	1.1
	Valid N	N=208	N=254	N=20	N=482

Table 6: Class Attendance

		Enrolment Status of 1993 Cohort in 1994			
		Left York	Atkinson	Other York	Group Total
Percent Lectures Attended	Mean	94.2	95.1	91.5	94.6
	Std Deviation	15.8	15.4	17.6	15.7
	Valid N	N=205	N=255	N=20	N=480
Percent Labs, etc. Attended	Mean	54.9	55.6	58.1	55.4
	Std Deviation	46.3	45.8	44.3	45.8
	Valid N	N=158	N=217	N=20	N=395

Table 7: Out-of-Class Activities

		Enrolment Status of 1993 Cohort in 1994			
		Left York	Atkinson	Other York	Table Total
No. Informal Academic Activities 2 Months	Mean	.4	.3	.4	.4
	Count	211	258	20	489
	Std Deviation	.8	.7	.7	.7
No. Clubs or Organizations Belong	Mean	.1	.1	.1	.1
	Count	211	258	20	489
	Std Deviation	.3	.3	.2	.3
No. Sports Activities Involved In	Mean	1	0	1	.0
	Count	211	258	20	489
	Std Deviation	.3	.2	.3	.3
No. Sports Events Watched Since Sept.	Mean	1	0	2	.1
	Count	211	258	20	489
	Std Deviation	.3	.3	.5	.3
No. Weekly Pub Visits	Mean	1	.1	.3	.1
	Count	211	258	20	489
	Std Deviation	.4	.4	.6	.4
No. New Friends Since Sept.	Mean	3.5	3.5	4.9	3.5
	Count	211	258	20	489
	Std Deviation	3.4	3.0	3.7	3.2
Minutes/Week with New Friends	Mean	24.1	27.1	37.1	26.2
	Count	211	258	20	489
	Std Deviation	32.6	32.8	41.2	33.1

Table 8: Agree Made Friends and Sense of Belonging

Agree that...		Enrolment Status of 1993 Cohort in 1994			
		Left York	Atkinson	Other York	Group Total
Made New Friends	Mean	2.8	2.9	3.1	2.9
	Std Deviation	1.1	1.1	1.1	1.1
	Valid N	N=205	N=250	N=20	N=475
Sense of Belonging Atkinson[a]	Mean	2.5	3.0	2.6	2.7
	Std Deviation	1.1	1.2	1.3	1.2
	Valid N	N=194	N=246	N=19	N=459

a. F. sig. .000

Table 9: Courses Taken and Study Hours

		Enrolment Status of 1993 Cohort in 1994			
		Left York	Atkinson	Other York	Group Total
Fall/Winter Courses[a]	Mean	1.6	1.9	2.3	1.8
	Std Deviation	1.1	1.4	1.3	1.3
	Valid N	N=211	N=258	N=20	N=489
Hours/week on Studies[b]	Mean	8.3	10.2	15.3	9.5
	Std Deviation	6.8	7.7	7.9	7.5
	Valid N	N=204	N=247	N=18	N=469
Weekly Hrs Study Per Course	Mean	6.0	6.5	8.1	6.3
	Std Deviation	4.7	5.3	6.8	5.1
	Valid N	N=204	N=247	N=18	N=469

a. F sig. .000

b. F sig. .006

There is a statistically significant difference in the extent to which students with different enrolment statuses agreed that they felt a sense of belonging to Atkinson. While those who left the university scored 2.5, individuals who returned to Atkinson and York had scores of 3.0 and 2.6 respectively. Despite the statistical significance of these differences, they are extremely small.

As seen in Table 9, differences among enrolment groups in terms of the number of courses taken are larger. While students who left York only enroled in 1.6 courses, those returning to Atkinson and York took 1.9 and 2.3 respectively. Moreover, a multiple range test (not shown) indicates that all comparisons are statistically significant at the .05 level. These figures indicate that students who were more involved in university life in terms of the number of courses taken were more likely than others to return for a second year.

Table data also indicate that statistically significant differences exist between enrolment groups in terms of hours per week spent on studies. Overall, students who would go elsewhere in York devoted the greatest amount of time to their studies (15.3 hours per week) while students leaving the university spent the least amount of time on the same activity (8.3 hours). Data in Table 9 also indicate, however, that when number of hours on studies is divided by the number of courses taken there are no statistically significant differences based on enrolment status.

Overall, students who returned to Atkinson or York or who left the university did not differ in terms of their classroom experiences, class attendance, out-of-class activities, or in the number of new friends made since the beginning of classes; however, those returning to Atkinson or York were slightly more likely than others to say that they felt a sense of belonging to the College. More importantly, students who returned to Atkinson or York took more courses than individuals who left the university. These findings are consistent with the theoretical proposition that student involvement in university activities contributes to outcomes such as retention.

Satisfaction with Experiences

Satisfaction with university experiences was measured by asking students, on a five point scale where 1 meant very dissatisfied and 5 very satisfied, how satisfied they were with: course content; instruction quality; the amount of work required in courses; departmental procedures; university procedures; university facilities; admission procedures; student services; class size; their program or major; and grades. On only two of these questions were differences in responses among students returning to Atkinson or York and those who left the university statistically significant.

Whereas students returning to Atkinson or York rated satisfaction with course content 3.9 and

Table 10: Satisfaction with the University Experience

Satisfied with...		Enrolment Status of 1993 Cohort in 1994			
		Left York	Atkinson	Other York	Group Total
Course Content [a]	Mean	3.7	3.9	4.0	3.8
	Std Deviation	.9	.9	1.1	.9
	Valid N	N=205	N=252	N=19	N=476
Instruction Quality	Mean	3.6	3.7	3.9	3.7
	Std Deviation	1.0	1.1	1.1	1.1
	Valid N	N=208	N=253	N=20	N=481
Work Required [b]	Mean	3.4	3.7	3.7	3.5
	Std Deviation	1.0	.9	1.0	1.0
	Valid N	N=207	N=256	N=20	N=483
Department Procedures	Mean	3.1	3.1	3.1	3.1
	Std Deviation	1.0	1.0	1.2	1.0
	Valid N	N=154	N=178	N=15	N=347
University Procedures	Mean	2.9	3.1	2.8	3.0
	Std Deviation	1.1	1.1	1.4	1.1
	Valid N	N=152	N=185	N=15	N=352
University Facilities	Mean	3.5	3.6	3.9	3.6
	Std Deviation	1.0	1.0	.8	1.0
	Valid N	N=168	N=212	N=17	N=397
Admission Procedures	Mean	3.2	3.4	3.2	3.3
	Std Deviation	1.2	1.1	1.3	1.1
	Valid N	N=195	N=235	N=17	N=447
Student Services	Mean	3.1	3.3	3.3	3.2
	Std Deviation	1.0	1.1	1.2	1.0
	Valid N	N=79	N=101	N=8	N=188
Class Size	Mean	3.4	3.3	3.7	3.3
	Std Deviation	1.2	1.3	1.1	1.2
	Valid N	N=202	N=252	N=20	N=474
Program/Major	Mean	3.7	3.9	3.9	3.8
	Std Deviation	.8	.8	.8	.8
	Valid N	N=178	N=235	N=16	N=429
Grades	Mean	3.6	3.5	3.7	3.5
	Std Deviation	1.1	1.0	1.1	1.1
	Valid N	N=196	N=245	N=20	N=461

[a] F sig .018

[b] F sig .004

4.0 respectively, the score for students who left the university was 3.7. Similarly, while returnees to Atkinson and York scored 3.7 each in terms of satisfaction with the amount of work required in courses the comparable figure for students who left was a lower 3.4. Although the differences are small, they are consistent with the notion that satisfaction with university experiences may contribute to retention.

Final Commitment to College

By the end of first year students would have ideas regarding the likelihood of their returning for a second year. Thoughts on this topic are likely related to the types of experiences students had over the course of the first year.

On a six point scale where 1 meant extremely unlikely and 6 extremely likely, students were asked how probable it was that they would return to Atkinson the following year. As seen from Table 11, students who would return to the College scored higher (5.4) on this question than those going elsewhere in York (4.2) or who left the university (4.5). These differences are statistically significant.

Grade Point Average

Information on grade point averages, as obtained from administrative records, is summarized in Table 12. While the grades of students returning to Atkinson and York were both 6.1, students who left the university earned a slightly lower 5.7. These differences, however, are not statistically significant.

The Overall Picture

In this report retention for a second year has been conceptualized as the result of students' background characteristics, barriers to education, initial educational goals and commitments, college experiences and the evaluation of these experiences, an emergent final commitment to return for a second year, and first year levels of academic achievement. Evidence presented thus far indicates that prior education and particularly initial goals and commitments may have consequences for retention. Certain experiences, and positive evaluations of experiences were also related to enrolment status in second year. Finally, enrolment status was connected to

Table 11: Final Commitment to College

		Enrolment Status of 1993 Cohort in 1994			
		Left York	Atkinson	Other York	Group Total
Return to Atkinson Sept. 1994[a]	Mean	4.5	5.4	4.2	5.0
	Std Deviation	1.6	.8	2.1	1.4
	Valid N	N=187	N=248	N=19	N=454

a. F sig. .000

Table 12: GPA and Retention Status

		Enrolment Status of 1993 Cohort in 1994			
		Left York	Atkinson	Other York	Group Total
Session GPA 1994	Mean	5.7	6.1	6.1	6.0
	Std Deviation	2.2	1.7	1.1	1.9
	Valid N	N=121	N=249	N=19	N=389

students' re-enrolment intentions at the end of first year.

In order to examine the connections among these variables a logistic regression was carried out in which students who left the university were compared to those who returned to Atkinson (scored 0 and 1 respectively). Those who went elsewhere in York are few and do not represent a loss to the university and, consequently, were excluded from analysis. The independent variables used in the regression were those found to differentiate in the foregoing analysis between students who left the university and students who returned to Atkinson. If a variable only distinguished those who went to other York faculties from those who returned to Atkinson or left the university it was not included.

As a result of this selection process, the following independent variables were included in the analysis:

- Background characteristics: previous education (less than, or completed high school = 0 and at least some post-secondary = 1).
- Initial goals and commitments: educational plans (less than a bachelor's degree = 0 and bachelor's degree = 1);
- College experiences: the extent to which the student felt a sense of belonging to Atkinson and the number of courses taken.
- Satisfaction with experiences: satisfaction with course content and the amount of work required in courses.
- Final commitment to college: the intention to return to Atkinson.

Variables found not to be significant were excluded from the final regression as summarized in Table 13.

The final regression retains only educational plans, number of courses taken, and the intention to return to Atkinson. On the basis of the odds ratio we can see that controlling for number of courses taken and intention to return to Atkinson, having an initial commitment to completing a bachelor's degree increases the odds of returning for a second year by 184% (100)*(2.84-1). Similarly, an increase in taking one course, and an increase in one measurement unit in intention to return to Atkinson, raise the odds of returning to Atkinson by 29% and 70% respectively.

Overall, these findings suggest that original educational plans at the time of entry are the best predictor of retention one year later. Independent of this original intention, number of courses taken and the expression at the end of first year of the intention to return to Atkinson for a second year also contribute to the prediction of retention.

Table 13: Regression Results

Variable	Regression Coefficient	df	Wald	Sig.	Odds Ratio
Educational Plans	1.06	1	11.22	.0008	2.84
No. Courses Taken	.26	1	5.29	.0215	1.29
Intention to Return	.53	1	19.32	.0000	1.70
Constant	-3.26	1	22.83	.0000	

Conclusion

The foregoing information suggests that retention for a second year at Atkinson College is related to the initial reasons students had for university attendance. Those with the desire to complete a degree were far more likely than students for whom degree completion was not a priority to enrol for a second year. Such students enroled in more courses than others and at the end of the year were relatively certain that they would return for a second year.

The corrolory to this is that the relatively low retention rate for second year for the College is not a result of barriers to education faced by students nor is it a function of institutional failure. With some minor exceptions, students who left the university faced barriers similar in magnitude to those who returned. Similarly, students who returned to Atkinson had comparable institutional experiences, in general expressed similar levels of satisfaction with those experiences, and received approximately the same grades as students who left the university.

At first glance, these findings appear to be inconsistent with the results of a recent report based on a survey of Atkinson students across all levels of study. In this endeavour Tacon (1996:8) found that among non-returning students in 1995-96 economic/financial and personal reasons were cited by 18% and 61% respectively in explanation for discontinuing studies. In the current study factors such as these were classified as situational and dispositional barriers.

The findings of the current study are similar to those of Tacon in that they suggest that bad experiences with the College do not explain decisions of students not to return for a second year: however, it was not possible to attribute attrition to situational and dispositional barriers. Part of the explanation for this difference may be that the students involved in Tacon's study were interviewed after they had left the College while in the current study students completed surveys before their decision to leave or return to the College. As a result, Tacon's examination may capture the reasons students provide to themselves and others for their dropout or stopout behaviour while this examination deals with conditions leading up to the decision not to return to the College. Viewed this way, despite some varying results, the studies are compatible.

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